CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Citation Oil and Gas Slope Stabilization
Proposed Implementation Date:	August 2013
Proponent:	Citation Oil and Gas Corp, 14077 Cutten Rd. Houston, MX 77069-2212 Ph: (281) 891-1000
Location:	SESWSW, Section 36 – T32N-R19E (Common School Trust)
County:	Blaine

I. TYPE AND PURPOSE OF ACTION

The proponent has requested permission to conduct work regarding the stabilization of an embankment that has suffered slope failure as a result of excessive rainfall occurring during the Spring of 2013. The embankment supports a large oil tank battery, a heater treater, and a free water knockout. DNRC expressed concerns to Citation that additional large rain events would cause more extensive sloughing of the hillside and possibly cause structural damage to the tank battery or other oilfield equipment located near the edge of the hillside.

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

Monte McNally, DNRC Land Use Specialist, has conducted a field review of the site in June, 2013. Scoping was performed by contacting DNRC Archaeologist Patrick Rennie, and researching the Montana Natural Heritage Program.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Citation is required to follow all other Local, State, and Federal laws.

3. ALTERNATIVES CONSIDERED:

No Action Alternative: No action would be taken and further slope failure would occur.

Action Alternative: Permission would be granted allowing Citation Oil and Gas to follow the remedy prescribed by the geotechnical firm hired to assess the sloughing hillside.

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:
Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

Geology in the proposed project area consists fissile to silty shale (Bearpaw Shale formation) with light grey to cream-colored bentonite layers interbedded within lower 1/3 of formation. A bentonite bed underlying the surface soils has been determined to be causing the hillside to slide. Overlying soils consist primarily of clay loams and some loams that are well drained, allowing water to percolate down and contact the impermeable bentonite layer beneath, causing a slip plane for the soils to slide down. Soils will be fortified with a cantilever-type soldier pile retaining wall prescribed by the geotechnical firm hired to evaluate the slope failure. The 5' tall soldier pile wall will be constructed of railroad tie lagging and 71 steel "H" beam piles spaced 6' apart and driven into bedrock to a total depth of approximately 20'. The wall would extend a length of 426' along the top of the hillside to prevent any additional sliding near the tank battery and free water knockout facilities.

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:
Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

The proposed action is not expected to affect groundwater or surface water quality or quantity. Either a silt fence or a containment berm will be placed between the construction site and the small ephemeral drainage (Sixmile Coulee) located just below the hillside to protect against silt runoff from entering the drainage.

6. AIR QUALITY:
What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

Construction will cause temporary fugitive dust pollution. The stabilization construction period is expected to last 10 days and would be occurring in a remote area where dust is not likely to be a major concern. Overlying soils existing at the proposed expansion area are rated by the NRCS as having a moderate to high resistance to fugitive dust formation.

7. VEGETATION COVER, QUANTITY AND QUALITY:
What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

Vegetation and topsoil would be completely removed in the area where the retaining wall is proposed. The area of disturbed soils should not be greater than 1 acre. Topsoil will be stockpiled and saved until construction has been completed, at which time the topsoil will be replaced and reseeded with native grass seed that is approved by the Havre Field Office prior to application. Citation will monitor the reclaimed area and control weeds for a three-year period after reclamation has been completed. A

review of the Natural Heritage Tracker database did not indicate the existence of rare plant species in the area of proposed construction.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:
Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

A variety of big game, small mammals, raptors, and songbirds use this area. Due to the short time period of 10 days in which the proposed activity would occur, no cumulative effects are expected to occur to fish and wildlife.

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:
Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

A search was conducted using the Montana Natural Heritage Program database to identify point observations of endangered, threatened, or candidate species within one mile of the proposed activity and no species were found.

A search for the Montana species of concern within one mile of the proposed activity resulted in one species being found - the Hoary Bat was confirmed to be spotted one mile northwest from the proposed activity on August 8th, 2008.

No impacts to unique, endangered, fragile or limited environmental resources are anticipated to occur as a result of the proposed action.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:
Identify and determine effects to historical, archaeological or paleontological resources.

DNRC Archaeologist, Patrick Rennie, was consulted regarding historical, archaeological, or paleontological resources in the area and found that the activity would have no effect on these resources.

11. AESTHETICS:
Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

The proposed activity includes putting in place a retaining wall near the top of the hillside in order to stabilize the embankment from sliding in the future. A 5' tall vertical wall composed of railroad ties will be noticeable to viewers in the near vicinity; although, the site is not visible from any of the nearby public roads.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:
Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

None.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:
List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

None.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:
Identify any health and safety risks posed by the project.

Typical safety risks associated with earthwork construction would be present during the project.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:
Identify how the project would add to or alter these activities.

The proposed activity would prevent the proponent from having to relocate the tank battery and other equipment to a different location, which would force the oil field to shut down operations for a long period of time. The option of relocating the facilities is also a much more expensive option than the proposed action.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:
Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

None.

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:
Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

The proposed action will not have any effect on tax revenues, other than it would prevent the halt of oil production (>15,000 barrels/month) in the field while the facilities are relocated to a different site.

18. DEMAND FOR GOVERNMENT SERVICES:
Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services.

None.

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:
List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

No known zoning or management plans exist for this area.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:
Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

None.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:
Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

None.

22. SOCIAL STRUCTURES AND MORES:
Identify potential disruption of native or traditional lifestyles or communities.

None.

23. CULTURAL UNIQUENESS AND DIVERSITY:
How would the action affect any unique quality of the area?

None.

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:
Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

The oil field is currently contributing over $15,000 per month in royalties to the Trust. The proposed action will enable Citation to continue producing the wells that are a part of the Bowes Sawtooth Unit, and therefore, continue payment of royalties to the State.

EA Checklist Prepared By:	**Name:**	Trevor E. Taylor	**Date:**	August 14th, 2013
	Title:	MMB Petroleum Engineer		

V. FINDING

25. ALTERNATIVE SELECTED:

After reviewing the Environmental Assessment, I have selected the Action Alternative, to approve the construction of the retaining wall. I believe this alternative can be implemented in a manner that is

consistent with the long-term sustainable natural resource management of the area and generate revenue for the common school trust.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

I conclude all identified potential impacts will be mitigated by utilizing the stipulations listed below and no significant impacts will occur as a result of implementing the selected alternative.

Stipulations:

(1) Proponent will repair any soil damage and seed any disturbed areas with native grass seed. Grass seed specifications will be provided by the Department's Area Field Office. Proponent will monitor the disturbed area and control weeds over the life of the lease.

(2) All necessary permits will be secured.

(3) All vehicles must be washed, particularly the undercarriage, to assure removal of dirt and plant material and seeds prior to entering the tract.

(4) Proponent shall submit as-built drawings of the constructed retaining wall and finish grade contours of the reclaimed hillside.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

☐	EIS	☐	More Detailed EA	X	No Further Analysis

EA Checklist Approved By:	**Name:**	Monte Mason
	Title:	MMB Bureau Chief
Signature: /s/ Monte Mason	**Date**:	8/20/13